Rocky Mountain Views
Rocky Mountain Association of Higher Education Facilities Officers

Summer 2006

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Upcoming APPA Events

CAPPA 2006 Annual Meeting
Sep 30 - Oct 4 at San Antonio, Texas

PCAPPA 2006 Annual Meeting
Sep 30 - Oct 4 at San Jose, California

MAPPA 2006 Annual Meeting
Oct 1 - Oct 4 at Indianapolis, Indiana

AASHE 2006 Conference
Oct 4 - Oct 6 at Tempe, Arizona

ACUHO-I Workshop Quintet
Oct 8 - Oct 10 at Jacksonville, Florida

Advance EMS Workshop
Oct 11 - Oct 12 at Ithaca, NY

Canada Green Building Council
Oct 11 - Oct 12 at Alberta, Canada

SRAPPA 2006 Annual Meeting
Oct 14 - Oct 17 at Durham, NC

ERAPPA 2006 Annual Meeting
Oct 15 - Oct 18 at Mystic Seaport, CT

NACAS 38th Annual Conference
Oct 15 - Oct 18 at San Diego, California

RMA 2006 Annual Meeting
Oct 18 - Oct 22 at Billings, Montana

2006 Design-Build Conference
Oct 18 - Oct 20 at Nashville, TN

Symposium on Healthcare Design
Oct 24 - Oct 26 at Chicago, Illinois

NCCI Roundtable
Oct 27 at Washington, DC

For a complete list of upcoming APPA events please go to: **www.appa.org**

President's Message

We have talked about how we are making changes in our lives and universities this past year. I use the idea of a leaf turning colors in the fall to connect with the idea of continuous change. If we are not looking forward to the future, we tend to live on our past accomplishments.

At the APPA National Conference the "Meeting of the Minds" dealt with the campus of the future. There was discussion on where the university campuses were going with many differences of opinion but all were in agreement that it was going to change. Have you thought about where your campus is going and what the future will be? Have you considered how you will contribute to the future of your campus?

APPA leadership has developed their strategic plan for the future and presented it to the membership at the conference. They have put forth the seven key strategies that will position the association for a bright future. We have set up a time at RMA Education Forum to hear where APPA is heading.

The seven strategies are as follows:

1. Develop and execute a "branding" initiative
2. Develop and implement an enhanced website to become the "go to" resource for facilities
3. Expand research to build credibility and visibility by senior institutional officers
4. Engage in symbiotic and collaborative partnerships
5. Engage young Facilities professionals
6. Provide targeted cutting edge educational programs
7. Establish credible and valued credentialing programs for the individual and institution.

APPA has set these strategies to create a strong foundation for our future.

RMA is looking at changes in its organization to help with the future. We mailed out the by-laws with changes for your review. We will be voting on these changes at the RMA Annual Meeting in Billings, Montana, October 19-22. We are looking at changing the structure of the board so that serving on the board involves a shorter tenure with choices for how you would like to serve. We invite you to get involved to help set the future of RMA.

Another four seasons have come and gone which means my time as president is almost up. I look back to the day when I decided to host an RMA Education forum that set me on a never ending journey of connecting and learning. RMA has given me the opportunity to give back to the organization, but I have gained more in the last year than I have given. I want to thank everyone for the support, friendship, and advice that has enhanced my journey.

Tommy H Moss

Gary Reynolds Inducted as an APPA Fellow

Honolulu, Hawai'i, July 10, 2006 — Gary Reynolds, Director of Facilities Services at The Colorado College, Colorado Springs, Colo., was awarded the prestigious APPA Fellow designation recognizing long-time contributions to the association.

According to APPA Fellow Douglas Christensen, Advocate, Office of Administrative Services for Physical Facilities at Brigham Young University, Provo, Utah, Reynolds "is truly an example of what this status stands for—exceptional leadership characteristics, skills, and performance."

Reynolds has served in higher education facilities since 1981 and has been an active member of APPA since 1982. He has served in a number of capacities in the association, including President, Director of the Facilities Management Institute, Co-Director of the Center for Facilities Research (CFaR), Vice President of Educational Services, and Dean of Track I of the Leadership Academy.

Reynolds has been a member of the faculty of APPA's Institute for Facilities Management for nearly 20 years and is a graduate of APPA's Professional Leadership Academy. Reynolds' research project, "The Impact of Facilities on the Recruitment and Retention of Students," conducted through CFaR with co-investigator David Cain of Carter & Burgess, Inc., was featured in the March/April and May/June issues of *Facilities Manager*, APPA's official publication. Reynolds and Cain presented the study at the Campus of the Future conference on July 10.

First awarded in 2004, the APPA Fellow designation brings with it recognition for specific accomplishments to date and expectations for continuing involvement in APPA's leadership program through research and mentoring. Individuals deserving of the Fellow designation must be an active member of APPA for 10 years and have graduated from APPA's Institute for Facilities Management, completed APPA's Leadership Academy, and completed an approved research project under APPA's Center for Facilities Research.

Harvey Chase Receives APPA Meritorious Service Award

Honolulu, Hawai'i, July 10, 2006 — Harvey D. Chace, Physical Plant Department Associate Director for Maintenance and Planning at the University of New Mexico, Albuquerque, N.M., was awarded APPA's highest individual service honor, the Meritorious Service Award, for his long-time contributions to the association.

According to University of New Mexico Physical Plant Director Mary Vosevich, "Mr. Chace's respected stance on facilities portfolio management affects the balance of long-range capital development planning by ensuring that the future generation of maintenance managers will face fewer service call challenges by renewing overdue building systems on an equal pace with capital architectural improvements. He is an experienced, accomplished, and well-polished champion of the facilities management profession."

Active on the national level, Chace serves as one of four associate directors of APPA's Center for Facilities Research (CFaR) where he assisted with the roll-out planning and development of the *Researcher's Guide* and developed policy and processes for participation of student chapters in CFaR-sponsored research. Chace authored a chapter in the 2003 APPA publication, *Planning and Managing the Campus Portfolio ("Vision and Facility Resource Alignment")*. He has served as Rocky Mountain regional representative to the APPA's board of directors and has also served as president of the Rocky Mountain APPA region. Chase was a recipient APPA's 2005 Pacesetter Award.

Each year, APPA members bestow the Meritorious Service Award upon the individual member or members who have made significant, life-long contributions to the profession of higher education facilities management. APPA's highest award for individual service, the Meritorious Service Award is given to no more than three individuals a year. Individuals must have been an active member of APPA for a minimum of ten years; attended and participated in meetings and other functions at the international level; and demonstrated continued and distinguished service to the association.

Nancy Hurt Awarded 2006 APPA Pacesetter Award

Honolulu, Hawai'i, July 9, 2006 — Nancy Hurt, Interim Associate Director Real Estate for Colorado State University, Fort Collins, Colo., was awarded the 2006 APPA Pacesetter Award for her dedication to the education facilities profession. The award was presented to Hurt during APPA's awards reception at the Campus of the Future conference in Honolulu, Hawai'i.

According to Polly Pinney of Arizona State University, "Nancy has been an active participant in APPA and Rocky Mountain APPA (RMA) regional activities since 1990. She has shown a dedicated and active approach to recruitment of members at both the international and regional levels. Her thoughtful creativity has resulted in new recruitment initiatives and new memberships."

Hurt is a graduate of both APPA's Institute for Facilities Management and the Leadership Academy. She serves as the RMA chapter's representative to APPA's international Membership Committee and serves as chair of RMA's Membership Committee as well. She has also headed RMA's educational program effort.

First awarded in 1999, the Pacesetter Award is designed to encourage further participation in APPA among those who have already made significant contributions at the regional or chapter level. Up to seven Pacesetter Awards may be awarded to individuals each year.

John Morris Awarded 2006 APPA Pacesetter Award

Honolulu, Hawai'i, July 9, 2006 — John Morris, Director, Physical Plant at University of Colorado at Boulder, was awarded the 2006 APPA Pacesetter Award for his dedication to the education facilities profession. The award was presented to Morris during APPA's awards reception at the Campus of the Future conference in Honolulu, Hawai'i.

According to Dave Brixen of Arizona State University, Morris created the concept of and is leading the effort to develop a recognition program for the Rocky Mountain APPA region (RMA). "Called the 14ers Club, the purpose of this program is

to promote recognition of individuals within RMA; support RMA in its mission to 'promote and develop the leadership capabilities of the higher education facilities management professional by providing timely opportunity for communications, partnerships and education'; and recruit and mentor others to prepare and fulfill leadership roles at their own institutions, within RMA and within APPA," said Brixen.

Morris serves RMA currently as secretary/treasurer and has also served as historian, authoring *Fifty Years of RMA* in 2003. He has also contributed to APPA's official publication *Facilities Manager*, as author of "The Hidden Economics of Campus Sustainability" in the May/June 2005 issue. Morris has also presented at and assisted with the planning for numerous educational forums for the facilities management profession. Morris is a graduate of APPA's Institute for Facilities Management and the Professional Leadership Academy.

State/Province Reports

Alberta/Saskatchewan Report

Correspondent: Greg Wiens

It has been a busy time for construction, requests for construction approval and fund raising for construction in Alberta in all sectors of the economy. The energy industry is booming. This activity level includes all the major Universities and Colleges as they seek to expand their infrastructures to meet student needs. Just ask the U of Alberta, U of Calgary or Doug Parker at the U of Lethbridge about construction and getting resources or people in the very active and heated Alberta economy.

Athabasca University has just completed a new 25 year Campus Development Plan, a systems wide 2006/2011 Capital Plan (with a view out to 2016), an Integrated Learning Centre Business Case for a Greater Edmonton Area Facility and a Functional Program and Conceptual Design for the Academic & Research Centre. This was all been completed in 7 months and with the full involvement and buy in of all campus stakeholder groups, which in itself is a major undertaking.

With these plans fresh and in hand, Athabasca University is now working on finalizing resources to turn plans into reality. The Provincial Government is currently reviewing AU's documentation and, as one of their goals is to increase room for enrollment growth in secondary institutions in the Province, are seriously considering Athabasca University's funding requests.

Aside from normal maintenance and operations, renewing leases on rented properties, expanding lab and office spaces with portable units, upgrading the library stacks to mobile compactor units and completing a major renovation on University House have also filled up the days for the staff at Athabasca University.

Our new President, Dr. Frits Pannekoek and his wife Christine, both live in University House and entertain guests and dignitaries there, so everything must be kept in perfect order. This does lead to some interesting requests that Facilities and Services need to satisfy. Most recently one of our staff was out buying nylon stockings for our guests from Mozambique as they were cold in our climate, despite the fact that Athabasca was in a hot spell with temperatures exceeding 95F.

To add excitement to the entire operation at AU, at exactly midnight, of course, a fire suppression system decided to discharge copious quantities of water into a second floor space despite there being no actual fire. The team response of AU staff, from all areas, was nothing short of amazing and clearly demonstrated that the dedicated and caring people who work for an institution are their most valuable resource.

Arizona Report

Correspondent: Dave Brixen

Arizona State University

By ASU Facilities Planning and Management Staff

Arizona State University has recently completed a 24 month campus utilities infrastructure upgrade project that reduces energy consumption, in the form of electricity and natural gas, as well as reduced water use at the main campus.

Energy efficiency projects included retrofit lighting systems, motor replacements, building HVAC controls, HVAC upgrades, Thermal Energy Storage controls, chiller and cooling tower replacements, Direct Digital Control Systems for new Central Plant equipment, steam pipe insulation, boiler blow down heat recovery, and campus Energy Information submetering. A solar photovoltaic parking cover was also installed.

Annual electric consumption avoidance roughly equates to 33 million kWh per year and a 7.5 MW demand reduction. The project encompassed 80 buildings of 6.5 million total square feet. Environmental benefits of this project—due to the decrease in electrical consumption—include an annual emissions reduction of approximately 69,069,000 pounds of CO2; 1,254 pounds of VOC; 137,742 pounds of NOx; 10,428 pounds of CO; 95,700 pounds of SO2; 7,623 pounds of Particulates; and 429,594 Milligrams of Mercury.

The lighting retrofit replaced 40,000 fixtures illuminating 3 million square feet of building space. These retrofits included changing T12 to T8 fixtures with new reflectors, replacing Incandescent lamps with Compact Fluorescent Screw-In lamps, installing LED exit signs, and replacing HID components with compact fluorescents. The project restored standard light levels and provided more pleasing and consistent visual effects to enhance productivity and occupant comfort and safety while reducing the electrical consumption rate 3,100 kW (15.5 million kWh per year).

The motor project installed 379 premium efficiency motors in place of standard units, ranging in size from 2 HP to 60 HP, in 57 buildings. Electricity consumption was reduced by 148 kW (1.2 million kWh per year).

Heating, Ventilating, and Air Conditioning modifications included economizer controls, return air CO2 sensors, optimum start/stop, and new time of day fan coil controllers in 26 buildings. In addition, 18 buildings have been retrofitted with new controllers for air handling units, pumping systems, and VAV boxes. Operating parameters and control schemes for this equipment can be modified remotely from the Control Room in the Central Plant. New Air Handling Units have been installed in two buildings, and units in 5 other buildings are being converted to Variable Air Volume systems. These projects allow for optimum indoor air quality while minimizing equipment run hours based on outdoor climate. The modifications trim 45 kW from our electrical demand rate (3.3 million kWh).

The Central Plant has been equipped with 8 new 2000 ton R134a refrigerant centrifugal chillers, cooling towers, condenser water pumps and motor control centers. The new equipment, including replacement of the old Thermal Energy Storage pneumatic controls with a digital system, is operated through the central plant automation system to provide optimum control. This phase of the project not only provides the largest reduction in energy use, with 3,800 kW less demand (13 million kWh per year) but it also replaces ozone depleting CFC and HCFC refrigerants with environmentally friendly HFCs.

Central Plant steam and hot water system modifications include boiler blow down heat recovery and new automated monitoring of energy consumption and production. Energy from the hot waste water is recovered (3.3 mmBTU) and the temperature of discharge into the sanitary sewer is reduced. The amount of cooling water required is reduced. Also, missing steam pipe and hot water pipe insulation was restored in building mechanical rooms and in the central plant with removable blanket insulation.

The previous central plant control system employed various vintages of a variety of control platforms and design schemes. The new automation system ties in all of the equipment on one common system platform to the Control Room of the Central Plant. The plant can now be optimized for peak performance over any weather and design conditions to maximize efficiency.

The University is also installing an Energy Information System throughout the campus. The system is designed to provide real-time, on-line access to how the Central Plant and the campus buildings are consuming energy. This data will be available to appropriate Administrators, Building Managers, Deans, and Facilities personnel for projects, research and energy management.

A 30 kW solar photovoltaic carport cover for 42 spaces was installed on parking structure #2. The system provides the full daytime load requirements for lighting inside the structure, as well as a visible expression of the ASU commitment to renewable and sustainable energy sources.

Northern Arizona University

By Mark Flynn, Executive Dir, Capital Assets and Srvcs

Hello from Flagstaff Arizona. The summer is rapidly winding to a close as we prepare for the return of students to the Mountain Campus. Preseason workouts for the Lumberjacks and the Arizona Cardinals have brought hundreds of guests to campus and the excitement is building toward the fall semester kickoff.

The excitement trends across the entire campus as our building program marches ahead at full speed. We have made a significant commitment in assuring the sustainability of campus facilities by incorporating LEED certification into our processes and design. The reaction from the campus has been to embrace the idea with open arms. Allow me in introduce some of our recent efforts:

College of Engineering and Natural Sciences:
The renovation and expansion of this facility has been completed to the delight of the facility occupants and the students that they serve. Incorporating extensive daylighting and water conservation strategies, the facility is being evaluated for LEED Silver Certification.

College of Business Administration:
This newly constructed facility opened its doors in January, 2006. Adaptive cooling and the under-floor mechanical distribution system are aiding this building in attaining a LEED Silver Certification. The large, open corridors and massive stairwell transport the occupants from floor to floor and the classrooms' front porches allow for informal interaction amongst faculty and students with great ease. Opaque arcadia doors adorn the faculty offices and assure that significant amounts of natural light are present in the hallways and public gathering areas of this facility. Consultation with the IDEO Group was instrumental to the development of innovative spaces for the occupants and the results have created rave reviews from students.

Applied Research and Design Facility:
Marching toward completion in January, 2007, this new research facility is seeking the lofty goal of a LEED Platinum certification at the elevation of 7000 feet above sea level. This project has proven to be a tremendous learning opportunity for the design and construction team as well as for the staff at Capital Assets and Services. Day lighting management, substantial water conservation efforts, adaptive heating and cooling, and the production of electrical power from a photovoltaic array are just a few of the sustainable attributes of this facility. We are also utilizing pervious concrete for the facilities hardscape to aid in storm water management. This effort is a true learning laboratory for all who visit the site.

While these campus construction efforts are a great boom to the physical campus, there are also numerous advancements toward creating a more sustainable environment for the entire community. Faculty, staff, and students are al invited to participate in the Sustainability Pledge whereby a commitment is made to take personal action to foster enhance the sustainable campus. The focus last year was toward lowering personal energy consumption. The pledge opportunity this fall will advance a commitment to increasing sustainable transportation venues such a public transportation and walking and bicycling. The focus is gathering momentum as the positive impact on the environment, campus parking and personal health are all touted as benefits of such a personal commitment.

These are just a few of the points of focus on the NAU campus that are helping aid our sustainable future. From large scale building projects to incorporating sustainable actions into our daily lives, we are seeking to advance the betterment of our campus for the greater good.

We at NAU Capital Assets and Services look forward to learning from your efforts and sharing our experiences so we all may benefit.

Idaho Report

Correspondent: Anna Weskerna

Idaho State University

By Syed Hashim, Environmental Specialist

Idaho State University (ISU) is proactive in continuously measuring and monitoring the pollution on campus and identifying measures to reduce and prevent pollution. An assessment of all major sources of emissions was conducted in May 2005 and an air quality test was conducted in January 2004 at the heat plant. The heat plant houses four boilers which produce steam for on-campus use and these boilers are the University's major fuel burning sources. A comprehensive energy and water conservation analysis was conducted by Chevron Energy Solutions

in September 2002. The next campus-wide pollution assessment is scheduled for August 2008.

The ISU Recycling Program conducts two training sessions each year. The Campus Planning Council, through Facilities Services, provides $3,000 in funding each year for projects which improve energy and water efficiency on campus. Training for several Facilities Services employees has included workshops on Bio-Fuel, managing greenhouse gases and refrigerant use, efficient energy and water conservation, air emissions modeling, and energy management.

ISU, in cooperation with the Pocatello DEQ and the Water Pollution Control Department, participated in an Environmental Community Fair in April 2006. They provided information to businesses, organizations and individuals on the Idaho GEMStars program, pollution prevention opportunities, distributed handouts on energy and water conservation tips and brochures with energy projects for K12 schools. ISU has participated in monthly meetings of the Chamber of Commerce and provided information to community business owners on pollution prevention methods and its environmental benefits.

In September 2005 ISU participated in the Intermountain Conference on the Environment and provided a display table with information to visitors on the P3 Pollution Prevention Program and energy and water conservation. The University regularly shares its environmental, energy and water conservation projects with the community through the local and campus newspapers and local TV channels. Our energy conservation efforts have also been featured in the U.S. Department of Energy's Rebuild America — Partner Update.

The following are some of our water and energy efficiency programs:

- Xeriscape-type landscaping around 15 on-campus buildings using Idaho native plants and organic mulch.
- Low-flow, Neoperl Cascade Faucet aerators have been installed in 750 faucets in 39 buildings on campus. Kohler low-flow toilets have been installed in 39 buildings, equipped with Sloan Flushmate which has reduced the water consumption from 5 gallons per flush to 1.6 gallons per flush. Estimated to save the University 24,500,000 gallons of water per year and a utility cost savings of $79,000 per year.
- Existing fluorescent T-12 bulbs and magnetic ballasts have been replaced with energy efficient fluorescent T-8 bulbs and electronic ballasts in 40 buildings. Estimated to save 1,460,000 kwh per year and a utility cost savings of $67,650 per year.
- All used motor oil, transmission fluids, and differential fluid wastes, accumulated during maintenance of university vehicles, is safely disposed of and recycled by a locally operated cement company in their production activities. Last year 2,160 gallons of used oil were recycled. Also every year on an average 700 used tires are removed during maintenance of university vehicles; collected and recycled by Les Schwab Tire Co.
- Custodial services uses acid-free disinfectant spray to clean toilets, sinks, and tables. They purchase all chemicals in bulk and utilize Ready-to-Use Command Centers to mix carpet cleaners and non-acid disinfectant bathroom cleaners. This eliminates the need to buy and dispose individual chemical bottles.
- Recycling has been recycling paper products since September 1989. Recycling bins are placed throughout the campus. Each year an estimated 265 tons of paper and 36,000 lbs of cardboard are recycled. All computer lab printers are setup to print on both sides of a paper and recycled paper is used for printing. Departments are also encouraged to do printing and copying on both sides of paper. Telecommunications reuses and recycles printer and fax machine toner cartridges. They also recharge and reuse the magnetized magrollers. Each year they recycle approximately 650 toners and magrollers. These recycled cartridges save between $30 to $100 per cartridge.
- Parking provides 811 free, on-campus parking spaces. In cooperation with the Pocatello Regional Transit, a free campus bus system is also provided. Transportation provides five Commuter Express buses with services to and from Idaho Falls, Twin Falls, Burley and Blackfoot on a daily basis throughout the school year. On an average, 300 students avail this facility every semester. This system, the free parking and the campus bus system reduces traffic on campus roads, reduces traffic on interstate/highways, hence fewer vehicles emitting carbon dioxide emissions, particulates and road dust, and cost savings in gas and maintenance of vehicles for all commuters. Transportation also has 14 ethanol-fueled "Flexible Fuel Vehicles" (FFV); but, due to the unavailability of ethanol fuel in Pocatello, these vehicles currently use unleaded 85 Octane gas.
- Public Safety has "bicycle patrols." Officers patrol the campus area on bicycles, which helps in reducing gas consumption and road dust pollution, and provides bike officers with a healthy workout. On an average the bicycle patrol has logged 3,000 miles per year.
- Rescheduling of HVAC controls in 36 buildings, which is estimated to save 1,800,000 kwh per year and a utility cost savings of $68,500 per year.
- ISU has signed a sixteen year performance contract with Chevron Energy Solutions to implement multiple energy and water conservation measures. These measures have resulted in an interim construction period savings of $202,000, 1,176,000 kwh, and 457,000 therms. Starting FY2007 the guaranteed annual utility cost savings are expected to be $542,932 per year.
- The campus heating plant prevents particulate emissions from escaping into the atmosphere by routing all emissions from their coal fired boiler through a baghouse before reaching the stack. The baghouse is a pollution control device and has a rated filtration capacity of 99%. The baghouse has reduced the PM10 emissions from 22 tons/year to 0.02 tons/year. The plant has two natural gas-fired boilers equipped with Low NOx Coen burners. These burners provide lower NOx and CO emissions, lower energy consumption, a higher turndown and simpler design than conventional burners.

Every member of the Idaho State University community is encouraged to provide stewardship in protecting the environment by preventing pollution on campus. The objective is to reduce waste and reuse and recycle materials. This will result in minimizing adverse impacts on the air, water, land, and other natural resources. It will also achieve cost savings and provide building occupants with a healthy and safe work environment. ISU's "Environmental Stewardship" pollution prevention policy is located at http://www.isu.edu/departments/phyplant/PDF/ISU_envStewardship.pdf.

In addition, the University has other environmental policies, including a Refrigerant Policy (http://www.isu.edu/

departments/phyplant/PDF/ISU_refrig_policy.pdf) and a Hazardous Waste Policy (http://www.physics.isu.edu/health-physics/tso/manual.html).

If you have any questions or would like more information, please contact Syed Hashim at energy@isu.edu or on the web at www.isu.edu/departments/phyplant.

University of Idaho

By Brian Johnson, AVP Facilities

The University of Idaho, located in Moscow in Northern Idaho, continues to increase its focus on sustainability. The newly published strategic plan for the University emphasizes stewardship of the natural environment, and seeks to develop the design, lifestyles, and civic infrastructures of sustainable communities.

The University also dedicated funding to new initiatives in support of the strategic plan and sought proposals from the across the campus community. Over forty proposals were screened, and five were ultimately approved for funding, including one seeking to promote sustainability concepts across the curriculum and within university business operations.

Simultaneously, student leadership proposed, and the students accepted, the establishment of a student fee to promote sustainability. This new fee will generate approximately $90,000 each year, and will be used to help establish an Office of Sustainability on campus, and to fund student internships and support implementation of student-led sustainability projects on campus.

The campus community is energized and enthusiastic about all that can be accomplished through the coordinated efforts of students, faculty, and staff.

Montana Report

Correspondent: Bob Lashaway

Montana State University - Bozeman

By Jonathan Ford, Manager Environmental Services

At Montana State University - Bozeman the subject of sustainability has most recently been brought to bear upon a sad little spring creek that makes its way across the western side of the campus.

Officially known as Mandeville Creek, it enters the campus property from some horse pastures via a pipe under a street. It continues several hundred feet under a parking lot, then surfaces briefly in the backyard of three of our high-rise residence halls. Then it dives underground again to pass beneath a ten story residence hall and yet another street. From there, it runs in an obviously man-made channel (it's as straight as an arrow) to the northern edge of University property.

The stream's proximity with the residence halls presents a special set of problems. Trash dumped from cars in large parking lots adjacent to the residence halls constantly blows into the creek. Small children from the family housing units make dams. Larger kids, i.e. college students, occasionally go off-roading and find that 4-wheel drives don't perform quite like the commercials and get stuck in the creek. Large riding lawn mowers get stuck while trying to edge ever closer to the water to knock down those last remaining wisps of grass from the lawn along the margins. The main overriding characteristic of the MSU reach of Mandeville Creek is traffic: lots of it, both vehicular as well as pedestrian. Added to those insults is drainage from dirty places such as parking lots.

With that as a background, in February of 2006 several natural resource professionals initiated discussions on the storm water runoff impacts to Bozeman's small urban streams and found a common desire to conduct further research and restoration efforts in this regard. As a result, the Mandeville Creek Restoration Work Group was formed.

Among the lofty goals set by the Work Group are:

- Eliminate, mitigate, remove or exclude pollution discharges to Mandeville Creek including sediment loading from parking lots, nutrient loading from fertilizer and septic sources, and trace levels of organic compounds.
- Restore hydrologic function by providing a channel and floodplain appropriate for maintaining geomorphic integrity and protecting urban infrastructure.
- Restore native vegetation to provide stream stabilization, water temperature control, songbird habitat and as a vegetation buffer to filter adjacent inputs to the creek.
- Improve aesthetics and recreational opportunities along Mandeville Creek.
- Construct amenities allowing for public appreciation and conservation of Mandeville Creek with connectivity to City streets and area trails.
- Provide information and education capacity to improve watershed and water quality understanding and opportunities for community involvement in stream restoration.

Sustainability, as represented by this list of goals, requires a new way of thinking that breaks away from and rises above the ever-present pressures a facilities professional faces to do things in the most effective, cost-efficient manner. It is a mantra we all develop to the point of almost being a reflex. The problem is that such a viewpoint is limited in that it is based almost exclusively in the short term. Thinking outside that box often comes with some hard choices and more than a few dilemmas.

For example, the use of native vegetation for landscaping has been hugely successful in the Southwest, where the extreme environment has produced a few natives highly adapted to lack of water, giving them the edge over the multitude of less adapted species. Thus, vegetation that is not supposed to be in the southwest simply cannot move in, and landscapers can establish plantings of native species that stay that way native. However, in the Northern Great Plains and Rocky Mountain Front climate regime, it is not nearly so extreme. Lots of introduced species (read weeds) can flourish.

With a weedy and a generally brushy riparian landscape scheme established as part of the creek restoration, maintenance costs will go up dramatically, especially when some of the key modern maintenance tools are taken away. For example, due to water quality issues, the efficient use of labor-saving herbicides to control weeds is not an option. Neither is mowing, which is usually not appreciated as a form of weed control. Mowing turfgrass produces an extreme environment in its own right, where only the few plants adapted to close grazing can survive. Close the sod up into a solid ground cover where the weed seed cannot germinate and the control is almost complete.

Native plants are typically not adapted to close grazing and are not good sod-formers, so with them a sort of weed-fest of introduced species develops in the open ground between the na-

tive plants. In Montana, the native plant species evolved in a buffalo-grazed, wildfire-dominated environment where, if placed under those influences today, would compete successfully against the introduced species. Obviously, that would be very hard to duplicate on a campus! We cannot periodically burn off the campus grounds, and buffalo grazing along the creek just might present some sort of hazard to students.

These days, turfgrass is generally maligned by the environmentally conscious as a high cost, water-guzzling landscape tradition foolishly imported from the aristocracies of northern Europe. While it does consume a great deal of water and is high maintenance, turfgrass is also unique in that it produces complete cover over the open ground. Without such a cover, typical campus traffic on open ground becomes a source of dust, mud and sand that inevitably migrates into the campus buildings on people's shoes where it wears out the floor surfaces. Turfgrass is an air-cooling, self-repairing surface (versus manmade surfaces that need to be replaced periodically at high cost) that provides amazing support for traffic of all kinds, including building maintenance equipment, concert venues and pedestrians. For a surface that is pummeled, rolled across and trod upon with the intensity found on a college campus, a tough, resilient, mud-abating surface is important.

An often unanticipated impact from the use of native plant species comes from the fact that the majority of people in our culture today do not tolerate the natural look in urban areas. They don't know what natural is. To them, such a planting looks like someone is not doing their job and that the institution does not place a high value on maintenance. It definitely gives the wrong impression to uninformed visitors and parents dropping off their children for college. This perception may change someday, but in this culture at this time in history, that is the way it is.

So Doritos bags and beer cartons will have to be retrieved from where they got caught in the riparian brush. Weeds, once throttled by the extreme environment of mowed turf and herbicides, will proliferate, requiring mechanical controls that consume lots of labor. But the overall result will be that a little creek that was once a forgotten, neglected drainage ditch will be transformed into a pleasant refuge from a very hectic urban and academic environment. From what is learned from the effort, the science and practice of restoring urban streams will advance resulting in a better future for all of us.

That seems to be the way it goes with sustainability: some of the higher initial installation and maintenance costs of sustainable systems are hard to accept, but lower long term costs to the environment and society make it all worthwhile. A perspective that looks to future generations is essential.

Utah Report

Correspondent: Brian Nielson

University of Utah

By Que Collard

It is a privilege to introduce the new Director of Plant Operations at University of Utah, Cory Higgins. Cory was selected from a list of over 50 applicants. The University of Utah performed a nationwide search to find a successor to legendary Plant Operation's Director, Pete Vanderhave. Pete retired from the University of Utah in June.

A selection committee comprised of students, faculty, and staff, was formed to screen, interview and recommend three final applicants. The three applicants visited the University of Utah, and met with the selection committee, vice presidents, associate directors, and staff. After the selection process was completed, Cory Higgins was named as the new Plant Operation's Director.

Cory comes to the University of Utah from Fort Collins, Colorado where he managed his own facility and business consultation business. Cory served in such positions as Account Project Services Director and Regional Facility Operations Manager. He worked with well known institutions and companies such as University of California at Los Alamos National Laboratory, Johnson Controls Inc., and Agilent Technologies.

Cory's education background is extensive. Cory earned a Bachelor's degree in civil/structural engineering, from Brigham Young University (BYU). Cory earned a Master's degree from BYU in engineering management. Cory is currently completing his Doctor of Philosophy in interdisciplinary studies, from Colorado State University.

Cory has been extremely active since he arrived at the University of Utah, as he has met with numerous departments, faculty and staff. Cory is positioned to implement his management philosophy which will define the structure of Plant Operations at the University of Utah.

Cory has recently joined RMA and is looking forward to the October conference in Billings Montana.

Editor's Corner

Due to the prolific writings of our members, exhaustive pontifications from yours truly will not be forthcoming this issue. I find myself quite literally relegated to the corner of this last page.

The articles submitted for this issue are superlative and demonstrate a very high level of familiarity and competence with the written word. Should this trend continue, competition for future H. Val Peterson awards may well be quite intense.

Our selected topic for this edition is sustainability (aka being green). What is clear from the activities described on these pages is that the environmental movement has moved in from the fringes and into mainstream society. Institutions of higher learning have always taken a leadership role in the advancement of social issues and I am gratified to see that our region's members have taken a leadership role in this vital concern.

It fascinates me that most "dumb" animals will not soil their own beds and yet humankind, the sentient species of this world, is so adept at doing exactly that. Of particular concern, it is said that our country has twenty percent of the world's population yet we consume eighty percent of it's resources! If we do these things in the green wood, what will happen in the dry?

Oops, a little pontification slipped in after all...

Congratulations to our four members that were recognized at the APPA National Conference in July. The Meeting of the Minds conference was a one-of-a-kind event and it is salutary that these individuals were recognized at this special place and time for their contributions to our organization and profession.

Remember our regional educational conference in Billings next month. Eakle promises an exciting and informative program. I hope to see you there! Until next time, I remain…

Your **N**ormally **A**greeable **G**azetteer - JM

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Rocky Mountain Views
Rocky Mountain Association of Higher Education Facilities Officers

Newsletter of the Rocky Mountain
Education Facilities Higher Education
Facilities Officers (RMA)

The ROCKY MOUNTAIN ASSOCIATION OF PHYSICAL PLANT ADMINSTRATORS OF UNIVERSITIES AND COLLEGES was organized in February of 1953 for the purpose of promoting the common interest in the planning, maintenance and operation of physical plants of Universities and Colleges in the Rocky Mountain Region: to foster a professional spirit among those engaged in this work; and to support and supplement the activities of its parent organization, the Association of Higher Education Facilities Officers (APPA). The Rocky Mountain Region encompasses the states of Arizona, Colorado, Montana, New Mexico, Utah, Wyoming and in Canada the Provinces of Alberta and Saskatchewan and the Northwest Territories.

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FUTURE MEETINGS

2006 Annual Meeting	Billings, MT	Montana State University
2007 Annual Meeting	Albuquerque, NM	University of New Mexico